

## Answer on Question#39324- Programming, C++

1. Write a program that reads in characters from the user. Assume they will give you correct input, which corresponds to capital letters (A-Z) and lower-case letters (a-z). Count up the number of vowels entered versus consonants. The program will terminate when the user gives, as input, an exclamation point (!). Use a switch statement where possible.

### Solution.

```
#include <iostream>
#include <ctype.h>

using namespace std;

int main(int argc, char* argv[])
{
    int ivwl=0,icnst=0;
    char ch;
    char *vowels[]={ "A", "E", "I", "O", "U" };
    char *consonants[]={ "B", "C", "D", "F", "G", "H", "J", "K", "L", "M", "N", "P", "Q",
    "R", "S", "T", "V", "W", "X", "Y", "Z" };

    while(1)
    {
        cout<<">> ";
        cin>>ch;
        for(int i=0; i<sizeof(vowels)/sizeof(vowels[0]); i++)
        {
            if(*vowels[i]==ch || tolower(*vowels[i])==ch){ ivwl++; }
        }

        for(int i=0; i<sizeof(consonants)/sizeof(consonants[0]); i++)
        {
            if(*consonants[i]==ch || tolower(*consonants[i])==ch){ icnst++; }
        }

        if(ch=='!'){break;}
    }

    cout<<"=====";
    cout<<endl<<"Vowels: "<<ivwl<<"    "<<"Consonants: "<<icnst<<endl;

    cin.get();
    cin.get();
    return 0;
}
```

```
D:\Projects\Qq\Debug\Qq.exe
>> f
>> F
>> d
>> D
>> o
>> O
>> f
>> c
>> C
>> ?
=====
Vowels: 2   Consonants: 6
```